

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

FLEXIBLE MOUNTING SUBSTRATE

Patent Number: JP63249345
Publication date: 1988-10-17
Inventor(s): YAMAMOTO HIDEO
Applicant(s): OLYMPUS OPTICAL CO LTD
Requested Patent: ☐ JP63249345
Application Number: JP19870083066 19870406
Priority Number(s):
IPC Classification: H01L21/60; H05K1/18
EC Classification:
Equivalents:

Abstract

PURPOSE:To enable an ultrasonic wire bonding requiring no bump formation by providing, in the substrate portion corresponding to the end portion of a lead formed on the rear of a soft substrate, an opening for wire connection having a width smaller than the lead width, thereby constructing a flexible mounting substrate.

CONSTITUTION:In the substrate 1 portion corresponding to the end portion of a lead 2 which was formed for connection of an electronic component such as a semiconductor IC chip 5 by patterning a conductive layer on the substrate 1 surface, an opening 3 for wire connection is formed which has a width smaller than that of this lead. With this, a ultrasonic wire bonding requiring no bump is enabled through the opening 3 for wire connection. Also, since no opening passing through to the surface and rear of the substrate 1 is formed, the resin encapsulation can be provided only at the side on which the electronic component such as the semiconductor IC chip 5 is mounted, thereby enabling a thin-type packaging.

Data supplied from the esp@cenet database - 12